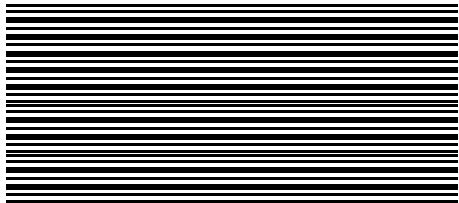




## **Pamphlet #6**

ALTERNATIVE DISPUTE  
RESOLUTION SERIES



# **DECIDING WHETHER OR NOT TO PARTNER SMALL PROJECTS: A GUIDE FOR U.S. ARMY CORPS OF ENGINEERS MANAGERS**

AUGUST 1995

IWR PAMPHLET 95-ADR-P-6

***The Corps Commitment to  
Alternative Dispute Resolution (ADR)***

*This pamphlet is one in a series of pamphlets describing techniques for Alternative Dispute Resolution (ADR). This series is part of a Corps program to encourage its managers to develop and utilize new ways of resolving disputes. ADR techniques may be used to prevent disputes, resolve them at earlier stages, or settle them prior to formal litigation. ADR is a new field, and additional techniques are being developed all the time. These pamphlets are a means of providing Corps managers with up-to-date information on the latest techniques. The information in this pamphlet is designed to provide a starting point for innovation by Corps managers in the use of ADR techniques. Other case studies and ADR working papers are available to assist managers.*

*The current list of pamphlets, case studies, and working papers in the ADR series is shown on the inside back cover of this pamphlet.*

*The ADR Program is carried out under the proponentcy of the U.S. Army Corps of Engineers, Office of Chief Counsel, Lester Edelman, Chief Counsel, and with the guidance of the U.S. Army Corps of Engineers' Institute for Water Resources (IWR), Alexandria VA. Jerome Delli Prisco, Ph.D., Senior Policy Analyst of IWR currently serves as Program Manager, assisted by Donna Ayres. James L. Creighton, Ph.D., Creighton & Creighton, Inc., serves as Principal Investigator of the contract under which these pamphlets are produced.*



*DECIDING WHETHER OR NOT  
TO PARTNER SMALL PROJECTS:  
A Guide for U.S. Army Corps of Engineers Managers*

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**Alternative Dispute  
Resolution Series**

**Pamphlet #6**

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**August 1995**

**IWR Pamphlet 95-ADR-P-6**



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## SECTION I: THE DECISION TO PARTNER

### INTRODUCTION

The U.S. Army Corps of Engineers (COE)<sup>1</sup> began using Partnering, a process that seeks to promote dispute prevention, in construction contracts in 1990. Initially, Partnering was used primarily in large projects. As of early 1992, COE policy is to develop, promote, and practice Partnering on all contracts (Commanders Policy Memorandum #16 on Partnering, February 18, 1992).

The use of Partnering<sup>2</sup> in small projects, defined as under \$3 million for the purposes of this study, varies greatly among districts. Managers of some districts Partner all small projects; others have chosen not to expend resources for small projects Partnering at all.

This guide is for managers who must decide whether or not to Partner a particular small project. It is written as a deliberative tool to foster thought. The tool will not provide you with a definitive answer to the question of whether or not to partner, but rather will offer guidelines and raise key issues to inform your decision.

The guide is divided into two sections. **Section I: The Decision to Partner** is a how-and-when-to-Partner small projects primer. **Section II: Illustrative Case Summaries** provides additional information about when and why COE managers have Partnered, or not Partnered, small projects.

Section I includes a description of Partnering, the *Should I Partner?* tool and an *If You Decide to Partner* segment. The *Should I Partner?* tool includes statements to consider relative to a particular small project in the categories of complexity, coordination, and experience. The *Should I Partner? -- Annotated* segment links the case summaries to the decision points of the tool.

*If You Decide to Partner*, describes key decisions to implement Partnering, including the use of an internal or external facilitator, the length of the Partnering workshop, and the frequency of Partnering meetings. If you do decide to Partner, this section will help you determine the

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<sup>1</sup> The U.S. Army Corps of Engineers is also referred to internally as USACE, which designates it as a major army command.

<sup>2</sup> This document assumes that Partnering is initiated by a workshop attended by personnel associated with the project. However, districts that have incorporated Partnering into their overall management framework apply Partnering principles during all projects, even when they have not held a Partnering workshop.



specifics of implementing Partnering. If you are undecided about Partnering, this section will familiarize you with the various forms of small projects Partnering.

Finally, Section I includes three appendices. Appendix A outlines a process to implement Partnering for a small project, including draft agendas for half-day, one-and-a-half-day, and two-day workshops. Appendix B provides information about developing facilitator capacity in your district, and Appendix C contains *Should I Partner?* worksheets.

Section II is composed of case summaries. The thirteen case summaries<sup>3</sup> describe a variety of small projects -- ten were Partnered and three were not. The summaries will provide you with additional information about Partnering relative to the statements of the *Should I Partner?* tool. Each summary illustrates a principle related to the use of Partnering and describes the key issues raised at the Partnering workshop and how those issues were handled during the project.

Section II also includes appendices. Appendix D lists the cases summarized by contract value. Appendix E provides sample Partnering charters written during actual workshops, and Appendix F lists the COE interviewees that contributed to this study.

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<sup>3</sup> The case summaries are designed to provide general information about each project. Not all cost and efficiency data were available at the time this study was written.





## WHAT IS PARTNERING?

Partnering is a process that attempts to foster cooperative relationships among COE personnel, its contractors, and users or "customers" by creating an environment that allows individuals to address issues and concerns through communication, trust, and responsiveness.

The goal of Partnering is a successful project defined by satisfactory work, completed on schedule, and within budget. Partnering also helps to manage conflicts as they arise, thereby reducing and preventing litigation and contract claims. These results are achieved by identifying common and individual goals among the agencies and organizations responsible for the project, by discussing potential problems and solutions prior to construction, and by creating a team approach to the project. "The key to partnering is building the team," said Paul Tucker of the Mobile (AL) District. According to the COE Pamphlet on Partnering (December 1991):

"Partnering, designed to create a positive, disputes prevention atmosphere during contract performance, uses team building activities to help define common goals, improve communication, and foster a problem solving attitude among a group of individuals who will work together throughout contract performance. ... A central objective of Partnering is to encourage contracting parties to change from their traditional adversarial relationships to a more cooperative, team-based approach and to prevent disputes."

As Partnering has been implemented throughout COE, managers have observed its benefits. According to senior managers in the Louisville (KY) District, "Partnering is a teamwork approach to achieving success. It seeks to change traditional project relationships to a shared culture where all can win. Partnering is based on trust, dedication to common goals, and an understanding of each other's expectations and values."<sup>4</sup> Or, as Richard Alexander from the Tulsa (OK) District said, "Partnering is a way to put the handshake back into business."

Partnering workshops for small projects are similar to those of large projects in that they are attended by COE managers, the contractor, the user, and other involved governmental agencies; require facilitators; and result in Partnering charters, which list shared goals and objectives of the participants. Small project Partnering workshops tend to be shorter than large project workshops, ranging from one-half to one-and-a-half days versus the two to three days of large projects. (At least one district, however, does use a two-day workshop for small projects.) In addition, while some districts always use external facilitators, others have found that internal COE facilitators can

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<sup>4</sup> Harback, Herbert; Basham, Donald; and Buhts, Robert, "Partnering Paradigm," *Journal of Management in Engineering*, Jan/Feb 1994.



## **IMPORTANT ASPECTS OF PARTNERING**

Partnering is "a long-term commitment between two or more organizations for the purpose of achieving specific business objectives by maximizing the effectiveness of each participant's resources. The relationship is based on trust, dedication to common goals, and an understanding of each other's individual expectations and values." (Construction Industry Institute Task Force on Partnering, 1989.) Partnering is not a legally binding relationship, a formal partnership. Rather it is a commitment and agreement between the parties to:

- Participate in structured facilitated team-building sessions and joint training to acquire the skills needed to work together as a team.
- Remove organizational impediments to open communication within the team, regardless of rank or organizational affiliation.
- Provide open and complete access to information (except information specifically excluded by law, regulations, or ethical requirements).
- Empower the working-level staff to resolve as many issues as possible.
- Reach decisions by consensus as much as possible, and when consensus is not possible, achieve resolution in a timely manner using an agreed-upon process for resolving disagreements.
- Take joint responsibility for consultation with other interested or affected agencies, groups, or individuals.
- Take joint responsibility for maintaining and nurturing the Partnering relationship.

effectively run small project Partnering workshops. Partnering accomplished with an internal facilitator is often referred to as "informal partnering."

As a long-term process, Partnering includes a series of steps that are described on the following pages and reiterated in Appendix A. Although Partnering activities in general may encompass a



variety of important aspects, Partnering on small projects may include a relatively narrow scope, defined in large part by one or more workshops. Nonetheless, Partnering on any project will incorporate important Partnering principles.

## **COSTS**

The costs involved in Partnering small projects include personnel time; facilitator fees and expenses, if an outside consultant is used; and room rental, if necessary, for workshops. The greatest cost is personnel time. Most obvious is the time spent at the workshop, and personnel costs vary with the length of the workshop and any post-workshop meetings that will be held. Not inconsequential is the time spent on logistics. Once a manager decides to Partner, he must contact the contractor, the user, and other involved parties to educate them about Partnering and confirm their commitment to participate. Someone must then schedule the meeting; find an appropriate location; and identify, and if necessary, contract with, the facilitator. If the facilitator is internal to COE, then personnel costs include the facilitator's time spent preparing for, and at the workshop.

If an external facilitator is used, costs will include professional fees and expenses. Fees vary according to the length of the workshop and the amount of preparation time required. Expenses vary according to required travel expenses. If the facilitator is local or from the surrounding region, COE will not have to cover airplane fares and hotel costs. Some districts share the facilitator fees and travel costs with the other parties to the Partnering.

Some districts rent space for Partnering workshops, others use COE conference rooms or rooms located at the job site. Room rental costs will vary with the length of the workshop.

Overall, the costs associated with Partnering are impacted by the complexity of the project, the level of coordination it requires, and the experience levels of all the involved parties.

## **BENEFITS**

COE managers that have instituted Partnering in small projects have noticed significant benefits in the form of completion of successful projects on time, within budget, and with few accidents. Many COE managers note that small projects often contain many of the same complexity and coordination issues of larger projects. In addition, some have noticed an increased quality of work life for COE personnel, a reduction in cost growth, and lower bids from some contractors experienced with Partnering.

There are no specific data documenting the benefits of Partnering small projects, but the benefits of Partnering, in general (large and small projects) are beginning to be documented. According to



COE Chief Trial Attorney Frank Carr, who keeps statistics on COE's use of alternative dispute resolution procedures, since Partnering has been instituted, claims have been reduced by 70%. A study by Harnett Partnering Consultants of Merritt Island, Florida that reviewed Partnering in the public and private sectors has shown its positive results.<sup>6</sup> In the Louisville District, twenty-eight Partnerings, many of which are still active, have already led to a documented savings of \$900,000 to the district.<sup>7</sup>

It is impossible to calculate the number of personnel hours that might have been spent on problems that were circumvented as a result of the relationships built through Partnering, but there is a sense among COE managers that the upfront time of the Partnering workshop saves them time in the long run.

Partnering is also saving tax dollars. One contractor stated that he can bid lower on COE projects now that he knows he will be able to recover costs for legitimate modifications. Thus, rather than bid higher to cover unanticipated problems, he can bid lower knowing that legitimate changes will be made in a timely manner. Thus he gets more work with COE, and the government ultimately saves money. Some managers feel it is likely that in the near future, a company that does not join into a Partnering relationship may well price itself out of COE business.

Finally, another unmeasurable benefit is an improved quality of work life. The Partnering commitment at the small project level informs the district personnel that government business is to be done through a team approach with the contractors and users rather than the traditional adversarial approach. In one district, even old-timers (20+ years with the Corps) have said that their quality of work life has improved with Partnering. Thus, with respect to personal and overall morale, Partnering on small projects appears to make a beneficial contribution.

In sum, the benefits of small projects Partnering, though not yet formally documented, have been observed by COE managers and personnel in the form of time and dollar savings. In addition, the Partnering approach appears to be preferable to the traditional adversarial approach to contractors.

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<sup>6</sup> See the results summarized in the Louisville District newsletter, *Partnering Progress*, November 1993.

<sup>7</sup> See Harback, Basham, and Buhts 1994.



## HOW TO USE THIS PAMPHLET

This pamphlet provides a format to assist COE managers in deciding whether or not to Partner small projects. It is designed to give guidance, not definitive answers. Though it is COE policy to apply the principles of Partnering to every construction contract, the decision to formally Partner on each specific project is a judgment call to be made by the COE manager. This guide will provide some points of reference upon which to base that judgment.<sup>8</sup>

The next page of this manual is titled, *Should I Partner?* This tool is composed of statements, which are divided into three categories: complexity, coordination, and experience. After reading each statement, rank your project relative to it. For example, the first statement is: *The project is complex*. If you strongly disagree with this statement because your project is very simple and straightforward, circle 1. If it is highly complex, circle 5. If it is somewhere in between, then circle the number that most closely reflects the level of complexity of the project. Complete this process for all the statements. (Appendix C contains *Should I Partner?* Worksheets.)

Once you have finished considering all the statements, look at the whole page. If most of your circles fall to the right of the page, you should strongly consider Partnering. If most of your answers fall to the left of the page, then you probably do not need to consider Partnering. If you circled 5 for **any** statement, you should consider Partnering.

If you want more information on a particular statement turn to the next page, entitled *Should I Partner? Annotated*. Following each statement is the name of a case and a page number. The case summary cited illustrates an aspect of the statement and will give you a better idea of how to rank your project relative to that statement. The cases tend to fall at the extremes of the spectrum for the principles they illustrate.

Finally, if you decide to Partner, move onto the next page entitled *If You Decide to Partner*. It highlights some of the key decisions you must make to implement Partnering for your project.

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<sup>8</sup> This tool will assist the COE manager in determining whether or not to partner a particular small project. Another recently developed tool, the Disputes Potential Index (DPI), can help you determine the likelihood of disputes during any project. It also offers possible remedies prior to the project such as Partnering or establishing a dispute review board. DPI is a PC-based software developed with the Construction Industry Institute (CII). The program involves numerically scored questions and provides on-screen advice. For more information consult the 1994 CII Conference Paper entitled, "Disputes Potential Index: A Cholesterol Test," by Boutte, Leo et al. The COE point of contact for the DPI, and a co-author of the above-mentioned paper, is James R. Jones. His telephone number is (410) 962-3217. The software is available from: Construction Industry Institute, 3208 Red River Street, Suite 300, Austin, Texas 78705-2650, telephone (512) 471-4319, fax (512) 499-8101.





## SHOULD I PARTNER?

### COMPLEXITY

The project is complex.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
strongly disagree	disagree	neutral	agree	strongly agree

Changes are likely during the project.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
----------	----------	----------	----------	----------

The project involves unique characteristics and concerns.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
----------	----------	----------	----------	----------

The public may be impacted during construction.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
----------	----------	----------	----------	----------

An inability to meet the schedule will have negative consequences.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
----------	----------	----------	----------	----------

### COORDINATION

There are several parties involved with the project.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
----------	----------	----------	----------	----------

COE must closely coordinate with other parties.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
----------	----------	----------	----------	----------

The project will require close coordination among various branches of COE.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
----------	----------	----------	----------	----------

The finished product will be passed onto another governmental agency for operations and maintenance.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
----------	----------	----------	----------	----------



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## EXPERIENCE

The user has little or no experience with COE.

---

1	2	3	4	5
---	---	---	---	---

The contractor has little or no experience in working with COE.

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1	2	3	4	5
---	---	---	---	---

The contractor has little or no experience with Partnering.

---

1	2	3	4	5
---	---	---	---	---





## SHOULD I PARTNER? -- ANNOTATED

See Page

### COMPLEXITY

**The project is complex.**

Integration of several contracts: Korean War Veterans Memorial 40

Standardized work: Maintenance Dredging, Charleston Harbor 44

Utility contract: Regional Waste Water Connection, Sheppard Air Force Base 47

**Changes are likely during the project.**

Unknown characteristics: Repairs to Locks and Dams on the Kentucky River 48

Changing regulations: Child Development Center, Scott Air Force Base 32

**The project involves unique characteristics and concerns.**

Unique concerns of user: Streambank Revetment, Drayton Hall 50

**The public may be impacted during construction.**

Customers: Commissary Building Renovation, Fort Knox 34

Tourists: Korean War Veterans Memorial 40

**An inability to meet the schedule will have negative consequences.**

Tightened time frame: Korean War Veterans Memorial 40

### COORDINATION

**There are several parties involved with the project.**

Korean War Veterans Memorial 40

**COE must closely coordinate with other parties.**

Contractor on equipment: Turbine Generator Repair and Rehabilitation, Lower Monumental Lock and Dam 52

User Personnel: Commissary Building Renovation, Fort Knox 34

Federal, State, and Municipal Agencies: Flood Wall for the Kentucky River, Frankfurt, Kentucky 38

**The project will require close coordination among various branches of COE.**

Repairs to Locks and Dams on the Kentucky River 48

**The finished product will be operated and maintained by another governmental agency.**

Korean War Veterans Memorial 40



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## EXPERIENCE

### **The user has little or no experience with COE.**

Streambank Revetment, Drayton Hall	50
------------------------------------	----

### **The contractor has little or no experience in working with COE.**

8A Contractor: Library Addition and Alterations, Scott Air Force Base	42
---	----

Contractor has a lot of experience: Maintenance Dredging in Charleston Harbor	44
---	----

Contractor has COE experience, but not with project: Battery Shop, Fort Irwin Residence Office	30
--	----

### **The contractor has little or no experience with Partnering.**

No experience: Out-Patient Clinic Extension and Alteration, Sheppard Air Force Base	45
---	----

Battery Shop, Fort Irwin Residence Office	30
---	----

Contractor not Interested: Family Housing Combustion Air Ducts, Fort Knox	36
---	----



## **IF YOU DECIDE TO PARTNER**

If you decide to Partner, there are a number of key decisions required to implement Partnering. These include selecting a facilitator, determining the length of the initial Partnering workshop, and deciding the frequency of Partnering meetings during the project.

### **FACILITATOR**

The facilitator is the person who runs the workshop. This person sets the agenda, introduces the concept of Partnering to all present, and keeps the meeting focused. Districts have successfully used internal and external facilitators.

An **internal facilitator** is a person who works for COE and has other responsibilities. Resident Engineers, Chiefs of Construction, and others have served as facilitators. Internal facilitators can be from within the district of the project or from another district. When districts use internal facilitators, they often consider the Partnering workshop to be “informal.”

**External facilitators** are outside consultants, typically professional facilitators with experience in running Partnering workshops. They must be contracted with for facilitation services.

The least costly of these options is the internal facilitator from within the district. The cost involves the time of the facilitator, including preparation time. Districts can obtain facilitator capability by sending personnel to a series of COE facilitation trainings<sup>9</sup>. An external facilitator typically charges a daily rate and must be reimbursed for travel expenses.

Some districts use only external facilitators because of the potential for bias or the perception of bias. These managers do not believe the contractor can fully participate in the Partnering workshop if he is concerned about a potentially biased facilitator. Other districts find that the Partnering process itself puts the contractor and other parties at ease. Some districts that do not have facilitator capacity have “borrowed” facilitators from other districts. This option may reduce the potential for perceived bias. Typically, an internal facilitator is used to run a half-day workshop; an external facilitator is more often used for a full-day (or longer) workshop that includes team building exercises.

As you decide whether to use an external or internal facilitator, keep in mind your sense of perceived bias, available resources, prior Partnering experience and goals of the workshop.

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<sup>9</sup> See Appendix B for a listing of COE facilitation courses.



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## **LENGTH OF PARTNERING WORKSHOP**

In small projects Partnering, the length of the workshop has varied by project and district. Small projects Partnering workshops have ranged from a half-day to two full days. The length of the workshop depends upon the complexity of the project, the number of participants, and the agenda of the workshop. Half-day sessions are typically discussions of goals and possible solutions to potential problems. Longer workshops are more likely to include team building exercises and even personality characterizations. The workshop length may also vary according to the workshop participants' experience with both Partnering and COE operations. For example, if COE and contractor personnel have previously Partnered, they may not need to repeat the team building exercises.

To decide the appropriate length of the workshop, think about the complexity of the project; the number of parties; the goals of the workshop; the Partnering experience of COE personnel, the contractor, and the user; and each one's experience in working with the others.

## **FREQUENCY OF PARTNERING MEETINGS DURING THE PROJECT**

The Partnering workshop may be the only meeting of all personnel involved with the project or the first in a series of meetings. In all Partnering, the workshop is used to set goals, consider solutions to potential problems, and create relationships. For some, this is the only formal meeting. When issues or problems arise, the Partners follow the procedures discussed at the workshop.

Some Partners use the workshop as an initial meeting and agree to meet monthly or weekly. This is typical of projects that require significant coordination on such things as timing or equipment use. In other instances, the Partnering participants reconvene when the project is fifty percent complete to review the goals they set, measure their success in reaching them, and revise their goals if necessary.

To decide how many meetings to hold, think about the complexity, coordination requirements, and time frame of the project.

## **SUMMARY**

If you decide to partner, you must choose a facilitator, determine the length of the Partnering workshop, and the frequency of Partnering meetings during the project. These decisions will vary with the complexity, coordination, and experience of the parties involved. Your decisions may be informed by your responses to the *Should I Partner?* statements.



## **CONCLUSION**

The decision to Partner a particular small project is dependent upon its complexity, level of coordination required, and the parties levels of experience with Partnering and COE. If a manager decides to Partner, he must select a facilitator, determine the length of the initial Partnering workshop, and decide the frequency of Partnering meetings during the project.

Given all the variables, there are no definitive answers to the question of whether or not to Partner a small project. The decision rests with the individual manager. This guide can assist managers in thinking through that decision by providing points of reference generated from the experiences of other COE managers.





## **APPENDIX A: PROCESS FOR SMALL PROJECT PARTNERING**

Confirm COE support for Partnering on the project

Identify the COE personnel who should be present at the Partnering workshop

Choose an appropriate location

Select an internal or external facilitator

Send a letter to the Contractor Chief Executive Officer, the Contractor's Project Manager, the Sponsor, and the User inviting them to a Partnering workshop and asking them to bring with them the individuals who will be involved in the project at the highest levels.

Schedule the Partnering workshop

Hold the Partnering workshop

### **Workshop Agenda**

#### Half-Day Workshop<sup>10</sup>

Self-introductions

Review of the project by the design engineer

Review of the Partnering process by the facilitator

State individual and team goals

Define success through group discussion

Identify potential problems

Identify solutions to the problems

Develop a group Partnering charter which lists  
common goals and which will be signed by all present

#### One-and-a Half Day Workshop<sup>11</sup>

Self-introductions

Communication guidelines and  
ground rules

General Partnering concepts

Understanding of conflicts and  
conflict management

Choice of Partnering name

Improvement of team communications

Development of a mission statement

Team discussion/quality indicators

Development of Partnering goals

Stages of team evolution

Follow-on tasks for the Partnering

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<sup>10</sup> This is the agenda used for the Streambank Revetment, Drayton Hall Partnering workshop, which used an internal COE facilitator.

<sup>11</sup> This is the agenda suggested by Harback, Basham, and Butts (1994).



Two-Day Workshop<sup>12</sup>

- Step 1 Welcome and Introductions
- Step 2 Expectations  
Why are you here?
- Step 3 What, Why, Who & How of Partnering
- Step 4 Handling Change — The Business of Paradigms  
(Video and discussion)
- Step 5 “Why do we do what we do” Workshop  
(Myers- Briggs Type Indicator Instrument)
- Step 6 Developing Preliminary Mission Statement and Performance Objectives  
(Values and norms)
- Step 7 Team Building Exercise: “Partnering Dilemma”  
(An exercise in trust)
- Step 8 Expected/Experienced Problems  
(Brainstorming process)
- Step 9 Action Planning  
(Problem resolution process)
- Step 10 Small Group Problem Solving/Action Plan Presentations
- Step 11 Developing Team Goals
- Step 12 Formulating Partnering Charter — Project Execution Team
- Step 13 Establishing Team Evaluation Process
- Step 14 Signing of Partnering Charter

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<sup>12</sup> This is an example of an agenda used by Paul Tucker of the Mobile District.





## **APPENDIX B: BUILDING FACILITATOR CAPABILITY IN YOUR DISTRICT**

### **For internal facilitators**

COE provides facilitation training<sup>13</sup> at various times during the year. Your district could send three or four people to these trainings.

Newly trained facilitators could contact seasoned COE facilitators for tips and to answer questions or even co-facilitate with them.

Contact other districts that already have facilitator capacity. See if you could occasionally borrow their facilitators.

### **For external facilitators**

Identify local and national facilitators

Keep a current list of external facilitators available

Call other districts for lists they may already have

Use a contracting vehicle that will allow you to easily contract with facilitators

---

<sup>13</sup> The following are facilitation courses available through COE:

Course # 091/CECW-PW	Communications Skills
Course # 092/CECW-PW	Public Involvement Planning
Course # 362/CEPA-1	Leadership Communication Skills
Prospect Course # 306	Negotiating, Bargaining, and Dispute Resolution (emphasis is on ADR, but facilitation will be discussed as a basic skill of ADR)

One Week Facilitation Course offered through the Fusion Center, Fort Belvoir, VA.  
For information contact: Sue DeVries at (703) 806-6232 or (703) 806-5233

In addition, check with your district training coordinator for local courses provided by private vendors.





## **APPENDIX C: *SHOULD I PARTNER?* WORKSHEETS**



## SHOULD I PARTNER?

### COMPLEXITY

The project is complex.

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

Changes are likely during the project.

1	2	3	4	5
---	---	---	---	---

The project involves unique characteristics and concerns.

1	2	3	4	5
---	---	---	---	---

The public may be impacted during construction.

1	2	3	4	5
---	---	---	---	---

An inability to meet the schedule will have negative consequences.

1	2	3	4	5
---	---	---	---	---

### COORDINATION

There are several parties involved with the project.

1	2	3	4	5
---	---	---	---	---

COE must closely coordinate with other parties.

1	2	3	4	5
---	---	---	---	---

The project will require close coordination among various branches of COE.

1	2	3	4	5
---	---	---	---	---

The finished product will be passed onto another governmental agency for operations and maintenance.

1	2	3	4	5
---	---	---	---	---

### EXPERIENCE

The user has little or no experience with COE.

1	2	3	4	5
---	---	---	---	---

The contractor has little or no experience in working with COE.

1	2	3	4	5
---	---	---	---	---

The contractor has little or no experience with Partnering.

1	2	3	4	5
---	---	---	---	---

## SHOULD I PARTNER?

### COMPLEXITY

The project is complex.

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

Changes are likely during the project.

1	2	3	4	5
---	---	---	---	---

The project involves unique characteristics and concerns.

1	2	3	4	5
---	---	---	---	---

The public may be impacted during construction.

1	2	3	4	5
---	---	---	---	---

An inability to meet the schedule will have negative consequences.

1	2	3	4	5
---	---	---	---	---

### COORDINATION

There are several parties involved with the project.

1	2	3	4	5
---	---	---	---	---

COE must closely coordinate with other parties.

1	2	3	4	5
---	---	---	---	---

The project will require close coordination among various branches of COE.

1	2	3	4	5
---	---	---	---	---

The finished product will be passed onto another governmental agency for operations and maintenance.

1	2	3	4	5
---	---	---	---	---

### EXPERIENCE

The user has little or no experience with COE.

1	2	3	4	5
---	---	---	---	---

The contractor has little or no experience in working with COE.

1	2	3	4	5
---	---	---	---	---

The contractor has little or no experience with Partnering.

1	2	3	4	5
---	---	---	---	---

## SHOULD I PARTNER?

### COMPLEXITY

The project is complex.

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

Changes are likely during the project.

1	2	3	4	5
---	---	---	---	---

The project involves unique characteristics and concerns.

1	2	3	4	5
---	---	---	---	---

The public may be impacted during construction.

1	2	3	4	5
---	---	---	---	---

An inability to meet the schedule will have negative consequences.

1	2	3	4	5
---	---	---	---	---

### COORDINATION

There are several parties involved with the project.

1	2	3	4	5
---	---	---	---	---

COE must closely coordinate with other parties.

1	2	3	4	5
---	---	---	---	---

The project will require close coordination among various branches of COE.

1	2	3	4	5
---	---	---	---	---

The finished product will be passed onto another governmental agency for operations and maintenance.

1	2	3	4	5
---	---	---	---	---

### EXPERIENCE

The user has little or no experience with COE.

1	2	3	4	5
---	---	---	---	---

The contractor has little or no experience in working with COE.

1	2	3	4	5
---	---	---	---	---

The contractor has little or no experience with Partnering.

1	2	3	4	5
---	---	---	---	---

## SHOULD I PARTNER?

### COMPLEXITY

The project is complex.

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

Changes are likely during the project.

1	2	3	4	5
---	---	---	---	---

The project involves unique characteristics and concerns.

1	2	3	4	5
---	---	---	---	---

The public may be impacted during construction.

1	2	3	4	5
---	---	---	---	---

An inability to meet the schedule will have negative consequences.

1	2	3	4	5
---	---	---	---	---

### COORDINATION

There are several parties involved with the project.

1	2	3	4	5
---	---	---	---	---

COE must closely coordinate with other parties.

1	2	3	4	5
---	---	---	---	---

The project will require close coordination among various branches of COE.

1	2	3	4	5
---	---	---	---	---

The finished product will be passed onto another governmental agency for operations and maintenance.

1	2	3	4	5
---	---	---	---	---

### EXPERIENCE

The user has little or no experience with COE.

1	2	3	4	5
---	---	---	---	---

The contractor has little or no experience in working with COE.

1	2	3	4	5
---	---	---	---	---

The contractor has little or no experience with Partnering.

1	2	3	4	5
---	---	---	---	---



## SHOULD I PARTNER?

### COMPLEXITY

The project is complex.

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

Changes are likely during the project.

1	2	3	4	5
---	---	---	---	---

The project involves unique characteristics and concerns.

1	2	3	4	5
---	---	---	---	---

The public may be impacted during construction.

1	2	3	4	5
---	---	---	---	---

An inability to meet the schedule will have negative consequences.

1	2	3	4	5
---	---	---	---	---

### COORDINATION

There are several parties involved with the project.

1	2	3	4	5
---	---	---	---	---

COE must closely coordinate with other parties.

1	2	3	4	5
---	---	---	---	---

The project will require close coordination among various branches of COE.

1	2	3	4	5
---	---	---	---	---

The finished product will be passed onto another governmental agency for operations and maintenance.

1	2	3	4	5
---	---	---	---	---

### EXPERIENCE

The user has little or no experience with COE.

1	2	3	4	5
---	---	---	---	---

The contractor has little or no experience in working with COE.

1	2	3	4	5
---	---	---	---	---

The contractor has little or no experience with Partnering.

1	2	3	4	5
---	---	---	---	---





## SECTION II: ILLUSTRATIVE CASE SUMMARIES

### INTRODUCTION TO THE CASE SUMMARIES

On the following pages are thirteen case summaries that describe a variety of small projects. Of the thirteen projects, ten were Partnered and three were not. The summaries will provide you with additional information about Partnering relative to the statements of the *Should I Partner?* tool. Each summary illustrates a principle related to the decision to Partner, describes the project, identifies the key issues discussed at the Partnering workshop, and explores how those issues were handled during the project.

The case summaries begin with a **bold face statement(s)** that is virtually identical to a statement(s) of the *Should I Partner?* tool. The case summary will illustrate an aspect of that statement and give you a better idea of how to rank your project relative to that statement. The cases tend to fall at the extremes of the spectrum for the principles they illustrate.

Appendix E includes examples of Partnering charters that were written during workshops.

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The case summaries are designed to provide general information about each project. All cost and efficiency data were not available at the time this study was written.

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## **BATTERY SHOP, FORT IRWIN RESIDENT OFFICE, FORT IRWIN, CALIFORNIA**

This case summary will illustrate the usefulness of Partnering when:

- 1. The contractor has little or no experience working with COE.**
- 2. The contractor has little or no experience with Partnering.**

In this case, the contractor had worked with COE before, but had never undertaken a similar project. In addition, he had no experience with Partnering.

### **PROJECT DESCRIPTION**

This project involved the construction of a battery shop on the premises of Fort Irwin. The battery shop is a facility where soldiers bring old batteries -- automobile size and up -- for servicing. The facility itself includes a charging room, battery case repair room, acid retaining tanks, and emergency eyewash and showering areas. The contract also included the construction of support facilities such as security lighting, fire protection and alarm services, and a self-contained heating, ventilation, and air conditioning system. The contract value was \$662,000.

### **THE PARTNERING WORKSHOP -- KEY ISSUES**

The battery shop project contractor had recently completed an outdoor recreational facility at Fort Irwin, thus he was familiar with COE procedures and practices, and the user. However, he had never built a battery shop before, and he had never participated in a Partnering workshop. COE personnel determined that informal Partnering would be beneficial.

Partnering served as a mechanism for opening up lines of communication. COE, the contractor, and user personnel met each other face-to-face, clarified responsibilities, and focused on building trust and relationships and solidified as a team.

### **DURING THE PROJECT**

When issues arose during the project, all personnel knew exactly whom to go to for advice and decisions. Since all saw themselves as part of the same team, COE personnel were able to advise the contractor, and he was willing to listen to and incorporate their advice.

The contractor got a late start on the project due to problems associated with the original drawings. As a result of informal Partnering, the group was able to quickly resolve the issues, thereby avoiding extended overhead.



### **CLAIMS, CHANGE/MODIFICATION ORDERS, ETC.**

The contract was completed satisfactorily, on time, and within budget. The contractor submitted two value engineering proposals. The first, to eliminate underground drainage lines for acid, was rejected. The second one, to relocate acid waste tanks closer to the building, was accepted and resulted in costs savings to the contractor and COE.



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## **CHILD DEVELOPMENT CENTER, SCOTT AIR FORCE BASE, LOUISVILLE DISTRICT, KENTUCKY**

This case summary will illustrate the usefulness of Partnering when:

### **Changes are likely during the project.**

In this case, there was an expectation that changes were likely to arise throughout the project as a result of revised and/or additional regulations.

### **PROJECT DESCRIPTION**

This design/build project involved the construction of a new child development center at Scott Air Force Base for approximately 100 children, aged six weeks to six years old. The facility contained a number of modules, or classrooms, and outside play areas, each of which was outfitted for a different age group. It included everything from changing tables for infants and toddlers to toys and climbing structures for older children. Child development centers must meet strict Department of Defense and Air Force standards as they relate to physical security, sanitation, and fire safety. If all the regulations are not met, the center cannot receive its certification and would be non-operational. The contract value for this project was \$2.29 million.

### **THE PARTNERING WORKSHOP -- KEY ISSUES**

At the Partnering workshop, one of the key issues discussed was the potential for numerous design changes because of the everchanging nature of childcare standards. Additional standards are required of facilities on a fairly regular basis. Discussions centered on how to get information that the child center director might receive to the designer. The director committed to provide the designer with a copy of the most current childcare center regulations and to inform him of any changes or additions at the earliest possible date.

It was also beneficial to explain the change order process to all the parties present so that they understood the required route of the change orders. In this way, the designer was sure not to demand an answer more quickly than COE could obtain one.

### **DURING THE PROJECT**

There were a number of minor changes in childcare regulations that arose during the project. Most of the requirements were folded into the design of the center early on because of the communication between the center director and the designer. Those that arose during the project



included the height and type of electrical outlets and a requirement for video monitors at a front desk from which all activities in each room could be viewed.

There was a general sense that modification orders were processed more expeditiously, than they would have been without the Partnering workshop. In addition, because the contractor and user were made aware of the modification order assessment procedures, they understood the length of time required to implement those procedures. This communication and information regarding COE procedures extended to what would have been seen as a delay in the completion of the project. Adverse weather conditions, recognized by COE and communicated to the user, allowed the user to understand that the project was completed on time according to the contract, even though the user's hoped for completion date was passed. Had the user not understood such procedures, he would have been likely to file a complaint with COE about the delay.

#### **CLAIMS, CHANGE/MODIFICATIONS ORDERS, ETC.**

There were a number of change orders based on additional childcare center standards that emerged during the project. The project was completed on time, contractually, after additional weather days were added to the original contract schedule because of adverse weather conditions including severe flooding. There were no claims filed for this project.



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## **COMMISSARY BUILDING RENOVATION, FORT KNOX, LOUISVILLE DISTRICT, KENTUCKY**

This case summary will illustrate the usefulness of Partnering when:

- 1. The public may be impacted during construction.**
- 2. COE must closely coordinate with other parties.**

In this case, there were concerns about the safety of, and disruption of services to, people not associated with the project. It also required close coordination among the parties involved with the project.

### **PROJECT DESCRIPTION**

Renovations to the Fort Knox Commissary included the replacement of automatic entrance and exit doors; all the refrigeration units, mechanical and in the shopping aisles; an expanded deli; the relocation of a food inspector office; and the addition of a manager's office at the Commissary. The store was to remain open throughout the renovations. The Commissary serves 2000 customers per day and does more business than any other supermarket in the Greater Louisville area. The contract value of the project was \$1.63 million.

### **THE PARTNERING WORKSHOP -- KEY ISSUES**

One of the key issues discussed at the Partnering workshop was how to ensure the safety of the commissary customers and ensure little or no disruption in service. COE, the contractor and the manager of the commissary discussed how to coordinate on the installation of the new refrigeration units given that during store hours, old units would have to be emptied and moved. They agreed to meet weekly to identify the refrigerators that would need to be emptied during the upcoming two weeks.

### **DURING THE PROJECT**

At the start of construction, there were two minor incidents -- the foreman cut himself and a worker left bare wires in a conduit, creating a risk of shock. Concerned about a bad pattern developing early on, the team reconvened to discuss safety issues. The contractor was embarrassed and felt he had let the Partners down. He immediately replaced the foreman and fired the worker. These actions made safety a top priority and no other significant incidents occurred during the project. In addition, there were no accidents involving customers and no complaints.





Throughout the project, the COE project manager, the contractor, and the commissary manager met weekly to ensure effective coordination regarding the emptying of the refrigerators for the following two weeks. At one point, the contractor got slightly behind schedule because a floor drain, not identified in the plans, needed to be relocated. Though it had not been discussed at their weekly meeting, the contractor needed a refrigerator cleared on very short notice and the commissary manager accommodated that request by using available personnel in the store.

In another instance, the contractor was installing a new entrance door close to the Memorial Day Weekend -- typically a very heavy shopping time. There was an alternate entrance way, but it could not accommodate the anticipated number of shoppers. Upon being told of the situation, the contractor accelerated his schedule and completed the door before the holiday rush.

#### **CLAIMS, CHANGE/MODIFICATIONS ORDERS, ETC.**

There were no claims filed for this project. There were several modification orders due to design deficiencies and changed conditions. They were all worked through easily with no disputes. The project was completed satisfactorily and on time contractually, based on days added because of the modification order.



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## **FAMILY HOUSING COMBUSTION AIR DUCTS, FORT KNOX, LOUISVILLE DISTRICT, KENTUCKY**

This case summary will illustrate that Partnering may not be absolutely essential when:

### **The contractor has little or no experience with Partnering.**

This project was successful in that it was completed on time, within budget, and with no contested claims. However, it was complicated enough -- it involved work in more than one thousand occupied housing units -- that based on the Should I Partner? questionnaire, Partnering would have been strongly recommended.

In this case, the contractor had no experience with Partnering but was not interested in participating in a Partnering workshop. Since participation in a workshop is voluntary, COE personnel did not think it would be useful to require the contractor to Partner.

### **PROJECT DESCRIPTION**

This project involved the installation of combustion air ducts into 1,692 family housing units. According to a revision of the National Fuel and Gas Code, the existing housing units were too small to provide the amount of fresh air required for safe and efficient operation of the gas furnaces in each unit. To remedy the situation, horizontal ducts, one in a closet and one in the living room ceiling, had to be installed. The contract amount was \$876,000.

### **WHY THERE WAS NO PARTNERING WORKSHOP**

When COE raised the option of Partnering with the contractor, the contractor said he would Partner if he was required to do so. COE personnel informed him that it was not a requirement, but something that had been useful in many other circumstances. Because of the contractor's reluctance to Partner, COE decided not to Partner because of a sense that Partnering only works if all the Partners come to the workshop with an open mind and a willingness to tackle tough issues together.

### **DURING THE PROJECT**

There were many modifications during the project. The generic duct design was not transferable to all the units. For example, some had sheds attached to the homes where one of the ducts was supposed to vent outward; others had electrical wires or water pipes in the pathway of the proposed duct.



The project went smoothly in that the modifications submitted by the contractor were generally considered fair and were efficiently processed by COE. According to COE personnel, “Even though we did not Partner, we carried the Partnering mentality into the project -- be honest, sincere, straightforward and open minded.”

#### **CLAIMS, CHANGE/MODIFICATIONS ORDERS, ETC.**

The project was successful. There were many modification orders based on differing site conditions. There were no claims filed and the project was completed ahead of schedule.



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## **FLOOD WALL FOR THE KENTUCKY RIVER, FRANKFORT, KENTUCKY, LOUISVILLE DISTRICT, KENTUCKY**

This case summary will illustrate the usefulness of Partnering when:

**COE must closely coordinate with other parties.**

This project required COE to coordinate its activities with city, state, and other federal agencies.

### **PROJECT DESCRIPTION**

A flood wall, including a pumping station, is being built along a 1200 foot low area of the Kentucky River to keep the river from flooding the South Frankfort section of the City of Frankfort. This particular section of the river runs alongside a school that was often flooded and is five blocks from the State Capitol Building, which sits atop a hill. The contract, valued at \$2.2 million, was the second of three contracts, which will combine to build a flood wall three-quarters of a mile long.

### **THE PARTNERING WORKSHOP -- KEY ISSUES**

The Partnering workshop was attended by COE and contractor personnel, but also included state and city officials such as the city manager, city engineer, and the school superintendent. With so many parties, communications were a key issue at the workshop. The group committed to resolving disputes at the field level whenever possible and set up clear lines of communication to facilitate the resolution of any conflicts. The Partners also discussed the city services necessary to support the project, such as traffic control and utility relocations.

In addition, school officials requested that construction trucks not travel through the school area during morning dropoffs and afternoon pickups. The contractor agreed not to have any materials delivered during those hours. For the safety of the school children, he also agreed to build a fence, at no additional cost, around the work area.

Finally, the group discussed the construction sequence. At the workshop, all the parties understood and agreed to a revised sequence, recommended by the contractor, which should allow him to complete the project three months early.

### **DURING THE PROJECT**

The relationships formed and the communication lines identified during the Partnering workshop significantly supported the project. "The relationships have been fantastic," commented a COE



team member. A number of times, the contractor happened upon pipes or utility lines that were not noted on the original drawings. The contractor contacted the city engineer, who provided the necessary information in a timely manner. This relationship and efficiency resulted in no construction delays. In one instance, the contractor hit an unknown pipe, and the city engineer quickly informed him that it was an abandoned sewer line. In another, the contractor could not locate the sanitary house main, as indicated in the drawings. City officials helped him locate it. When the contractor's operations were within an unsafe distance from a gas line, the city engineer had the municipal gas company move it within three days.

One of the most useful aspects of Partnering was that all the project personnel met each other face-to-face. As a result, when questions arose, the parties went to the appropriate source for information. COE did not have to function as the intermediary, for example, between the contractor and the city officials. However, COE stays informed of all communications among the parties of the Partnering, and all the involved parties respect the contractual authority and responsibility of the COE District Commanding Officer/Contracting Officer.

#### **CLAIMS, CHANGE/MODIFICATIONS ORDERS, ETC.**

There were three minor modifications on this project. They included the relocation of a sanitary sewer, a decision to use a different type of flow sensor in the pumping station than was originally planned, and to remove a foundation slab from the bottom of the pump station.

At the time of the interviews, the project was 20% complete, and was on schedule to be completed three months ahead of the contract completion date, as was agreed to at the Partnering conference.



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## **KOREAN WAR VETERANS MEMORIAL, WASHINGTON, D.C. MALL, BALTIMORE DISTRICT, MARYLAND**

This case summary will illustrate the usefulness of Partnering when:

- 1. The project is complex.**
- 2. An inability to meet the schedule will have negative consequences.**
- 3. The finished product will be operated and maintained by another governmental agency.**

This project is highly complex in that it involves the integration and synchronization of several different construction supply and design contracts. It also requires an earlier-than-expected completion date due to a planned presidential dedication. Finally, upon its completion, the monument will be operated and maintained by the National Park Service.

### **PROJECT DESCRIPTION**

When completed, the Korean War Veterans Memorial will include a 164-foot long wall of polished black granite, containing thousands of photographic images etched into the stone, nineteen stainless steel statues depicting a platoon of soldiers moving towards their objective of a U.S. flag, and a chapel area consisting of a reflecting pool and inscription panels dedicated to fallen soldiers, all of which will be surrounded by extensive landscaping. It will be located at the base of the Lincoln Memorial on a 7 1/2 acre site. The memorial is being erected for the American Battle Monuments Commission (ABMC) and the Korean War Veterans Advisory Board. Once completed, it will be administered by the National Park Service. The contract amount is \$3.1 million.

### **THE PARTNERING WORKSHOP -- KEY ISSUES**

One of the key issues discussed during the Partnering workshop was the project completion date. Contractually, the project is scheduled for completion in August of 1995. However, a presidential dedication ceremony is planned for July 27, 1995, the forty-second anniversary of the armistice agreement that ended the conflict. At the workshop, the contractor committed to complete the monument by the end of June 1995. All agreed that this tightened time frame could be met only through mutual cooperation.

The National Park Service (NPS) raised the issue of the sustainability of the memorial over time. NPS personnel were concerned about the longevity of the trees. COE agreed to special



provisions to protect the trees around the site and to work with NPS throughout the project should sustainability issues arise.

Another issue discussed during the workshop was the level of coordination required among the various contractors for the project. The Partnering workshop was convened for the construction contract, which involves integrating all of the separately contracted for parts of the monument, including a \$2 million stone contract, \$2 million statue fabrication, site preparation, and an architectural engineering contract. At the workshop, the parties committed to meet weekly to coordinate the various elements of the monument's construction.

## **DURING THE PROJECT**

The on-site personnel meet weekly to discuss the upcoming project activities and the necessary coordination required to maintain the shortened project schedule. The customer, ABMC, is brought to the site once each month to ensure that the construction is consistent with the planned design.

COE has worked to ensure that certain fertilization and root pruning techniques are used to extend the life and sustainability of the trees at the Memorial. For example, COE personnel went to the New Jersey nurseries that are raising the trees to ensure that the tree roots were pruned according to a special technique, identified by the Park Service, to increase the trees' longevity.

To construct the reflecting pool, utility work needed to be done. This required closing down water lines used by the National Park Service throughout the area. The coordination was easily accomplished and allowed the project to stay on schedule. To effectively coordinate all the components of the monument, during a weekly session, the group meshed the production schedules of the stone and statutes with the construction schedule.

## **CLAIMS, CHANGE/MODIFICATIONS ORDERS, ETC.**

A \$60,000 change order for differing site conditions was agreed to due to excavations for utilities, which required the use of additional stone. To date, there have been no claims filed for this project.



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## **LIBRARY ADDITION AND ALTERATIONS, SCOTT AIR FORCE BASE, LOUISVILLE DISTRICT, KENTUCKY**

This case summary will illustrate the usefulness of Partnering when:

**The contractor has little or no experience working with COE.**

This project was done by an 8A contractor, who had never before worked with COE.

### **PROJECT DESCRIPTION**

This project, a design/build contract, involved an addition to an existing library at Scott Air Force Base. It was a technically simple project involving concrete and steel construction of a 20,000 square-foot addition. The contract also included interior finishes, a replacement of the heating, ventilation, and air conditioning (HVAC) system, and asbestos abatement work in the mechanical room. The value of the contract was \$500,000.

The 8A program is designed to help small disadvantaged businesses (SDBs) get experience so that they can develop as competitive companies. Typically, 8A companies have limited experience and so require assistance and the expertise of COE personnel. COE is required to award 15% of its contracts to SDBs.

### **THE PARTNERING WORKSHOP -- KEY ISSUES**

An exercise during the Partnering workshop required the members of each organization (COE, contractor, Scott Air Force Base) to identify the strengths and weaknesses of the other two parties. One of the key potential roadblocks to a successful completion of the project was identified as the inexperience of the contractor.

With that issue on the table, the group was able to discuss actions the other two parties could take to compensate for the contractor's inexperience, and to teach him how to accomplish the tasks, in line with the goals of the 8A program.

During the workshop, the Partners agreed that continuous effort and attention would be necessary to sustain the Partnering to fulfill its goals. Therefore, the group decided to hold at least weekly meetings to review the work accomplished and scheduled in an effort to resolve problems as they arose. The group also identified the paper work associated with material submittals as a potential roadblock to a timely completion of the project. To alleviate this problem, they agreed to hold pre-submittal meetings.





In addition, the Partnering workshop clarified the roles and responsibilities of COE and Air Force personnel to the contractor and made him feel at ease in asking for needed assistance.

## **DURING THE PROJECT**

As had been decided during the workshop, the group held pre-submittal meetings, though they often discussed many other issues at those meetings as well. COE personnel assisted in helping the contractor with the submittals that had to be made for materials such as the HVAC system and paint colors.

Throughout the project, which is not yet completed, COE personnel have maintained a good relationship with the contractor. In fact, they assist him on an almost day-to-day basis. Regarding the lines of communication that have been created, a COE manager said, "It would be easier to be unresponsive to the guy if you never ate danish and drank coffee with him."

## **CLAIMS, CHANGE/MODIFICATIONS ORDERS, ETC.**

The project is scheduled to be completed in March 1995. However, due to delays during the design phase, it is expected that the project will be completed after that date. There have been change orders issued from the user regarding finishing colors for the interior of the existing building and a change in the desired HVAC system. There have been no claims and none are expected.



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## **MAINTENANCE DREDGING, CHARLESTON HARBOR, SOUTH CAROLINA, CHARLESTON DISTRICT, SOUTH CAROLINA**

This case summary will illustrate that there is no need to Partner when:

**The contractor has a lot of experience working with COE.**

This case was standardized work, without complications, and was done by experienced contractors.

### **PROJECT DESCRIPTION**

This project involves the hydraulic dredging of maintenance shoaling, or material, in the Charleston Harbor. Such work is done once or twice each year and involves moving approximately 500,000 to 1 million cubic yards of material. For procurement and administrative reasons, it falls into the construction category. The contract cost of this work is usually between \$750,000 and \$1 million.

### **WHY PARTNERING WAS NOT NECESSARY**

Three contractors bid on the most recent contract. Each had done similar work previously for COE. The work was straightforward and no special treatments were required. The contractor that was selected had a long history with COE on dredging projects and had successfully completed this exact project numerous times in the past.

The COE personnel that interacted with the contractor were very familiar with the contractor's practices and procedures as was the contractor with those of COE. In addition, this project involved only two parties, COE and the contractor; there was no outside user.

### **CLAIMS, CHANGE/MODIFICATIONS ORDERS, ETC.**

The contract was completed satisfactorily, on time, within budget, and there were no claims or work change orders.



## **OUT-PATIENT CLINIC EXTENSION, SHEPPARD AIR FORCE BASE, TULSA DISTRICT, OKLAHOMA**

This case summary will illustrate the usefulness of Partnering when:

### **The contractor has little or no experience with Partnering.**

In this case, the contractor had no experience with Partnering.

## **PROJECT DESCRIPTION**

This project involved enlarging and upgrading the general outpatient clinic of a hospital at Sheppard Air Force Base in Wichita Falls, Texas. It doubled the size of the existing clinic and added examination rooms and administrative offices. The original contract amount was \$1.95 million.

## **THE PARTNERING WORKSHOP -- KEY ISSUES**

The contractor had never before attended a Partnering workshop, though he had worked with COE in the past. At the Partnering workshop, the usual issues were discussed -- safety, schedule, and project costs. The on-site personnel agreed to meet weekly to discuss upcoming project activities, and all present agreed to meet again when the project was fifty percent complete. Most importantly, the workshop paved the way for honest and open communication.

## **DURING THE PROJECT**

The contractor met with COE personnel weekly. During the project, the client requested a large utility modification to make way for future work. As a result of the weekly meetings, the group agreed that it was necessary and discussed the best way to accomplish the work. While the order was being processed, COE personnel gave the contractor the information he required to effectively redirect his efforts until the modification order was approved. Since this modification was required to support two follow-on jobs, a failure to communicate early about it could have affected the contractor's critical path.

When the project was half complete, the original members of the Partnering workshop reconvened to review the project's status relative to their earlier goals. They found some were effectively met, and others needed to be modified.

Ultimately, the contractor completed the project eight months ahead of contract schedule through close phasing coordination with COE and the building occupants. The project was completed



satisfactorily. Said a COE manager, “People had the right attitude with this job. Partnering tends to create a vehicle that reminds us how we used to do business with a handshake or a word. It allowed us to return to that tradition.”

**CLAIMS, CHANGE/MODIFICATIONS ORDERS, ETC.**

There was one utility modification order valued at \$80,000. The contract was completed satisfactorily, eight months ahead of schedule, within budget, and there were no claims.



## **REGIONAL WASTE WATER CONNECTION, SHEPPARD AIR FORCE BASE, TULSA DISTRICT, OKLAHOMA**

This case summary will illustrate that there may be no need to Partner when:

### **The project is not complex.**

This case was a utility contract, within which are standard operating procedures and coordination measures.

### **PROJECT DESCRIPTION**

This project involved building a connection from the Sheppard Air Force Base waste water system to a regional waste water treatment plant. The waste water system on the base was extended to the perimeter of the federal property so that the city/county could connect it to the regional system, which is operated by state and municipal agencies. The contract amount was \$900,000.

### **WHY PARTNERING MAY NOT BE NECESSARY**

Utility contracts include measures for coordination since it is almost always the case that service will be interrupted during construction. There are standard operating procedures for shutting down and restarting the service, and, according to a COE manager, “it is not necessary to reinvent the wheel.”

This project was considered simple and straightforward. However, some districts do choose to partner utility contracts to enhance the relationships among personnel involved with the project. These districts find that although standard operating procedures exist for coordinating the turning on and off of services, the procedures do not necessarily ensure the required cooperation and coordination.

### **CLAIMS, CHANGE/MODIFICATIONS ORDERS, ETC.**

The contract was completed satisfactorily, on time, within budget, and there were no claims or work change orders.



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## **REPAIRS TO LOCKS AND DAMS ON THE KENTUCKY RIVER, LOUISVILLE DISTRICT, KENTUCKY**

This case summary will illustrate the usefulness of Partnering when:

- 1. The project will require close coordination among various branches of COE.**
- 2. Changes are likely during the project.**

This case required closed coordination among the engineering, construction, and contracting branches of COE because prior to contracting, there was only limited information regarding the necessary repairs.

### **PROJECT DESCRIPTION**

This project involved the repair of three locks and dams on the Kentucky River, which were built during the late 1800s. They were no longer used for commercial operations, and COE had stopped operating them. The pools behind the dams provide the water supply for the surrounding central Kentucky towns, and the state wanted to take over the operations and maintenance of the locks. Before it could relinquish the locks and dams to the state, COE had to repair the dams to ensure their integrity for water supply.

The dams have water flowing over them, which made it impossible to identify, with certainty, the necessary repairs. For contracting purposes, COE made its best guesses, knowing that numerous modifications to the original work plan were likely. The value of the contract at bid was \$2.1 million.

### **THE PARTNERING WORKSHOP -- KEY ISSUES**

At the Partnering workshop, the team members spoke of the degree of unknowns on the project. Different branches of COE were represented -- including engineering, construction, and contracting. They all became familiar with the project and committed to completing modification orders efficiently.

Based on conversations at the workshop, state officials agreed to provide operators to open the locks, at the request of the contractor to move construction equipment from one river pool to the other.



## **DURING THE PROJECT**

During the project, as expected, new information became available regarding the repair work necessary to ensure the integrity of the locks and dams. When differing site conditions arose, COE engineers and contracting personnel went out to the site quickly. In a joint problem solving mode, the contractor and COE discussed how to best rectify the given situation. COE incorporated some of the contractor's suggestions, and modifications were processed quickly.

Each week the contractor gave the state water authority personnel its schedule and requirements for the opening of the locks, and state personnel opened the locks according to that schedule. In this situation, the contractor dealt directly with the state rather than requiring COE to function as an intermediary.

## **CLAIMS, CHANGE/MODIFICATIONS ORDERS, ETC.**

As expected, there were a series of modifications as a result of differing site conditions. The project is currently approximately 50% complete, on schedule, and no claims exist at this time.



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## **STREAMBANK REVETMENT, DRAYTON HALL, SOUTH CAROLINA, CHARLESTON DISTRICT, SOUTH CAROLINA**

This case summary will illustrate the usefulness of Partnering when:

- 1. The user has little or no experience with COE.**
- 2. The project involves unique characteristics and concerns.**

In this case, the user had never worked with COE before. COE personnel were especially concerned with the users unfamiliarity with COE contract administration. In addition, the user had a series of unique concerns that were not easily discernible by other personnel associated with the project.

### **PROJECT DESCRIPTION**

The Drayton Hall Streambank Protection project involved the stabilization of the Ashley River bank through a 410-foot revetment, or re-facing, of the riverbank. Drayton Hall is a National Historic Landmark and a museum property of the National Trust for Historic Preservation (a non-profit, public service organization chartered by Congress). An archeological structure, located close to the Ashley River, was threatened by the accelerated erosion of the Ashley River streambank due to powerboat traffic on the river. The contract value was \$189,625.

### **THE PARTNERING WORKSHOP -- KEY ISSUES**

A key issue discussed during the workshop was the chain of command with regard to the project. The contractor was concerned that some Drayton Hall employees, who would be present at the site everyday, might not understand that the contractor worked for, and therefore only took orders from, COE. The contractor was concerned about the potential disputes caused by Drayton Hall employees coming on-site with requests or orders.

The Partnering workshop allowed the chain of command to be explicitly and clearly articulated. COE personnel sought to delineate for the contractor and the user, who was in charge, the responsibilities of each party, and the contacts for problems, should any arise.

Drayton Hall officials used the Partnering workshop to explain that the contractor might unearth archaeologically significant finds and explained how to identify and protect such areas and objects of importance. Many of the issues raised by Drayton Hall officials were of such a subtle nature,





for example roots systems of aged trees and particular shrubs, that no other forum would have allowed them to be aired. Rather without the workshop, these issues likely would have been raised only after irreparable damage had occurred.

## **DURING THE PROJECT**

The clear articulation of the chain of command to all in the Drayton Hall organization probably prevented a host of conflicts. The Drayton Hall senior staff members were convinced that COE and the contractor were doing everything possible to reduce impacts to the property. This pre-empted likely attempts to micro-manage the project.

After learning of the Drayton Hall concerns, the contractor made staffing decisions based on who he felt would understand, and be sensitive to, the needs expressed by Drayton Hall.

At the outset of the project, an archaeologically significant find was made precisely where the access road had been planned. As a result of the Partnering workshop, the group was immediately able to redraw the access road. The change in the access road at the earliest point in the project meant savings for the contractor, Drayton Hall, and COE. As the contractor said, “It’s a lot cheaper to move a stake than a road that’s already been built.”

## **CLAIMS, CHANGE/MODIFICATIONS ORDERS, ETC.**

Prior to the Partnering workshop, there was a \$13,000 modification to cover the costs of the daily surveying of the project. After signing the original contract, COE determined that it would be more cost effective to have the contractor, rather than COE, be responsible for the surveying.

There were no additional changes or any claims during the project.



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## **TURBINE GENERATOR REPAIR AND REHABILITATION, LOWER MONUMENTAL LOCK AND DAM WALLA WALLA DISTRICT, WASHINGTON**

This case summary will illustrate the usefulness of Partnering when:

**COE must closely coordinate with other parties.**

In this case, close coordination between COE and the contractor was required for the use of equipment.

### **PROJECT DESCRIPTION**

This project involved the repair and rehabilitation of a 135MW turbine generator of the Lower Monumental Lock and Dam. The unit, one of six in the powerhouse, was brought down for known repairs. Fueled by the five remaining generators, the lock and dam continued to operate during the repair work. Almost all the work had to be done in the powerhouse, thus requiring that an enclosure be built to contain dust from activities such as sand blasting and painting. The value of the contract was \$1.3 million.

### **THE PARTNERING WORKSHOP -- KEY ISSUES**

To successfully complete the project, COE and contractor personnel were required to coordinate closely on both the use of a government bridge crane and to ensure no interruption to the smooth operation of the dam during the repairs. In addition, since the repair work was done while the lock and dam continued to function, COE operations personnel were in constant contact with the contractor and his personnel.

The Partnering workshop was devoted primarily to communication issues and discussions of the coordination of the use of the equipment and movement around the facility. COE made explicit the condition, which was outlined in the contract, that provided the contractor with the right to use the government bridge crane but gave the government operations personnel priority for its use. COE personnel explained likely situations in which they would need to use it.

### **DURING THE PROJECT**

During the project, questions arose regarding the use of the crane. At one point, the operations personnel needed the equipment for one week. The contractor had to change his plans to do work that did not require the use of the crane. This situation was handled effectively because lines of communication had been drawn during the workshop. Because of the trust that was built, the contractor understood why the operations personnel required the equipment. It is a possibility



that without the Partnering workshop, the contractor would not have understood, nor accepted, COE's need to use the equipment.

**CLAIMS, CHANGE/MODIFICATIONS ORDERS, ETC.**

The project was completed within budget and with no disputed claims. However, it was completed 48 days late, and as a result, liquidated damages were assessed. Quality was satisfactory.





## **APPENDIX D: CASES BY CONTRACT VALUE**

<b><u>Case</u></b>	<b><u>Contract Value</u></b>
Streambank Protection, Drayton Hall, South Carolina	\$189,625
Library Addition and Alterations, Scott Air Force Base	\$500,000
Battery Shop, Fort Irwin Residence Office	\$662,000
Family Housing Combustion Air Ducts, Fort Knox	\$876,000
Regional Waste Water Connection, Sheppard Air Force Base	\$900,000
Maintenance Dredging, Charleston Harbor	\$1 million
Turbine Generator Repair and Rehab, Lower Monumental Lock and Dam	\$1.3 million
Commissary Building Renovation, Fort Knox	\$1.63 million
Out-Patient Clinic Extension and Alteration, Sheppard Air Force Base	\$1.95 million
Repairs to Locks and Dams, Kentucky River	\$2.1 million
Flood Wall for the Kentucky River, Frankfort, Kentucky	\$2.2 million
Child Development Center, Scott Air Force Base	\$2.29 million
Korean War Veterans Memorial Monument, Washington, D.C. Mall	\$3.1 million



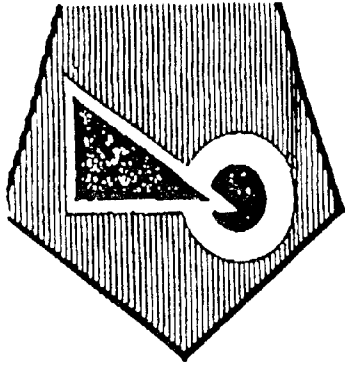


## **APPENDIX E: SAMPLE PARTNERING CHARTERS**

1. Korean War Veterans Memorial, Washington D.C. Mall
2. Flood Wall for the Kentucky River, Frankfort, Kentucky
3. Repairs to Locks and Dams on the Kentucky River
4. Streambank Revetment, Drayton Hall, South Carolina
5. Turbine Generator Repair and Rehabilitation, Lower Monumental Lock and Dam







## THE KOREAN WAR VETERANS MEMORIAL

### PARTNERING AGREEMENT

We, the partners of the Korean War Veterans Memorial project, agree to work as a cohesive team to construct a memorial of exceptional quality that enhances the natural beauty of the site and which can be maintained and sustained as a national monument for future generations.

We are committed to maintaining open communications, joint problem solving at the lowest levels possible, and teamwork all in an effort to produce a memorial that all participants can be proud of.

We are committed to accomplishing the following goals:

1. Provide and maintain a safe work environment with no mishaps to the public or lost time accidents.
2. Complete the project by June 30, 1995.
3. Complete the project within government budget limitations and to allow the contractor to realize a profit.
4. Satisfy the American Battle Monuments Commission and National Park Service expectations by realizing the full extent of the design.
5. Protect the existing natural and cultural resources at the site.

We recognize that we must remain a responsive and proactive partnership in order to accomplish these goals.





US Army Corps  
of Engineers  
Louisville District



AN EMPLOYMENT ACTION CORPORATION



## SOUTH FRANKFORT FLOOD FIGHTERS

### MISSION STATEMENT

We the South Frankfort "Flood Fighters" are committed to constructing a reliable and high quality flood protection system within budget, while minimizing disruption to the school, community, and environment. We will accomplish this mission with a cooperative attitude, through open communication, good coordination, and innovative thinking. This Partnership will strive to achieve this mission in a safe, timely, profitable manner and through fair and equitable resolution of any conflicts.

### SOUTH FRANKFORT FLOOD FIGHTERS PARTNERSHIP GOALS

1. No accidents involving school children and members of the public.
2. No lost time or property damage accidents.
3. Provide efficient management of school construction and public traffic flow, so that buses are on time and congestion is minimized.
4. Respond to community concerns in a timely and professional manner.
5. Satisfy all internal/external customers.
6. Provide quality construction in accordance with plans and specifications.
7. Resolve all conflicts within partnership within one week and at the lowest level possible.
8. Conflicts will be resolved without litigation.
9. Provide a two week turn around of submittals after C.O.E. receipt.
10. Change orders will be complete within 60 days of RFP.
11. As built and O&M manuals will be complete and submitted at substantial completion.
12. A successful partnership based on an overall average of 4 out of 5 on the "Partnership Evaluation".
13. Final completion of the project on or before July 31, 1995.
14. Close-out of contract within sixty days of physical completion.
15. Provide a project which is beneficial to the partnership.

*James C. [Signature]*  
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*[Signature]*  
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*Paul Skimmer*  
*[Signature]*  
*Ed [Signature]*  
*B.D. Shaw*  
*Steve Hartman*  
*Rob [Signature]*  
*Darryl [Signature]*  
*[Signature]*  
*James H. Brown*  
*[Signature]*

98-65-66X





Kentucky River Beavers



US Army Corps  
of Engineers  
Louisville District



Developed by the US Army Corps of Engineers  
Kentucky River Authority



ROSEK  
CONSTRUCTION CO., INC.



### PARTNERING AGREEMENT FOR KENTUCKY RIVER BEAVERS

We, the Kentucky River Beavers, are committed to rehabilitating Locks and Dams 6, 7, 8 and 9 safely, within budget and in a timely and efficient manner. We resolve to accomplish this task profitably, for all parties, through open communication, cooperation and trust.

#### Goals

- No lost time or property accidents.
- Complete the project by December 1, 1994.
- No punch lists.
- Contract closeout within 60 days of physical completion.
- Cost growth shall not exceed 15% of original contract price.
- All parties will realize a profit from completion of the project.
- Completed work is high quality and satisfies operational needs.
- Establish and maintain good relations with the public.
- Minimize adverse impacts to the environment.
- Minimize unscheduled lockmaster activities.
- Submittals will be processed and returned within 10 days of receipt.
- Resolve questions and issues at the lowest possible working level.
- All parties will continue to be friends at the end of the project.
- Resolution of change orders and modifications within 60 days.
- Safety deficiencies will be corrected without delay.
- Contractor receives outstanding performance appraisal.

Floyd Hueley  
Don Lynn  
Tom Dwyer  
Andrea Hattwood  
Darryl V. Fitzgerald  
Shirley A. Warner  
Robert H. Kern  
William B. Rife  
Robert A. Rife  
Curtis T. Beasley  
Paul Hueley  
Steve T. Rife  
Kennis L. L. L.  
Sam R. Con

98-67-68X



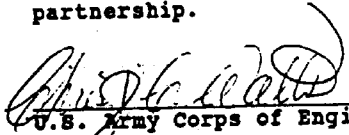
**THE PARTNERING AGREEMENT  
OF DRAYTON HALL STREAMBANK,  
PROTECTION PROJECT,  
CHARLESTON COUNTY, SOUTH CAROLINA**

I. We, the members of this project team, are committed to working together in a spirit of cooperation, with trust, respect, integrity, honesty, and fairness to complete successfully the Drayton Hall Streambank Protection Project, Charleston County, South Carolina.

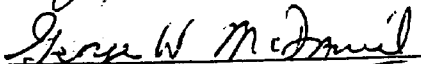
II. We are committed to open communications, joint problem solving, and teamwork to accomplish the following goals:

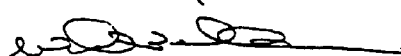
- Talk first then write
- Commit to QA/QC process
- Protect site assets
- Share schedules
- No lost time accidents
- Timely submittals and turnaround with first time approvals
- Create pride and ownership in project
- Have fun

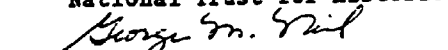
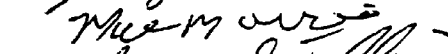

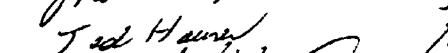
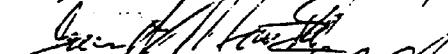

III. Our goals will be achieved through a commitment to teamwork and partnering characterized by mutual trust, responsiveness, flexibility and open communication. To accomplish these goals, we the Drayton Hall Streambank Protection Project Team commit to project decision-making at the lowest possible level within the team. All partners assume equal responsibility in the partnership.


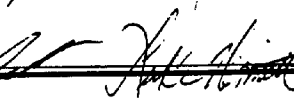


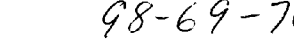






  
U.S. Army Corps of Engineers

  
L-J Corporation, Inc.

  
Drayton Hall  
National Trust for Historic Preservation

  
CHARLESTON COUNTY SOIL  
AND WATER CONSERVATION  
DISTRICT

98-69-70X





# Partnering Goals

DACW68-92-C-0047

- 1 - Unit Disassembly
- 2 - Communications
- 3 - Timely Problem Identification
- 4 - Professional Objectivity / Good Rapport
- 5 - Efficient Running Unit
- 6 - Outstanding Performance Appraisal
- 7 - No Lost Time Accidents
- 8 - No OSHA Infractions
- 9 - Timely Completion
- 10 - Claim Avoidance
- 11 - Well Prepared Timely Submittals / Timely Response
- 12 - Timely Schedule Coordination
- 13 - Minimal Disruptions To Work
- 14 - HTW Regulation Compliance
- 15 - Reasonable Profit
- 16 - Quality Product
- 17 - Fair Treatment
- 18 - Problem Solutions At Lowest Level



Spooner Mechanical Contractors, Inc.



98-71-724

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## **APPENDIX F: LIST OF CORPS OF ENGINEERS INTERVIEWEES**

Richard Alexander, Project Engineer, Tulsa District  
Donald Basham, Deputy District Engineer, Louisville District  
Lloyd Calwell, Chief of Construction, Baltimore District  
Frank Carr, Chief Trial Attorney, Headquarters  
George Craig, District Counsel, Pittsburgh District  
David Dale, Project Manager, Louisville District  
Ihad Elgohard, Construction Division Liaison, Baltimore District  
Carl Enson, Chief of Construction, Los Angeles District  
Gary Fitzgerald, Assistant Area Engineer, Fort Knox, Louisville District  
Robert Hess, Construction Representative, Fort Knox, Louisville District  
Ted Haddox, District Counsel, Louisville District  
Gary Henningson, District Counsel, Omaha District  
William Hough, District Counsel, Savannah District  
David Klintiver, Resident Engineer, Fort Knox, Louisville District  
Major Brian Loggins, Director of Quality Assurance, Louisville District  
Keiso Morrimoto, Civil Engineer, Fort Irwin Resident Office, Los Angeles District  
Jan O’Ryan, Office Engineer, Fort Irwin Resident Office, Los Angeles District  
John Roselle, District Counsel, Tulsa District  
Charles Schroer, Chief, Construction Division, Directorate of Military Programs  
Elmer Schwigen, Chief of Construction Operations, Charleston District  
Major Peter Taylor, Resident Engineer, Baltimore District  
Paul Tucker, Chief of Construction, Mobile District  
Tom Tullis, Chief of Construction, Charleston District  
Christie Watts, Contracting Officer, Charleston District  
Kevin Widener, Project Manager, Charleston District  
Gary Willard, Chief of Construction, Walla Walla District





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## ALTERNATIVE DISPUTE RESOLUTION SERIES

Number	Title	NTIS NUMBER
<b>PAMPHLETS</b>		
89-ADR-P-1	The Mini-Trial	AD-224260
90-ADR-P-2	Non-Binding Arbitration	
91-ADR-P-3	Mediation	
91-ADR-P-4	Partnering	
95-ADR-P-5	Public Participation	
<b>CASE STUDIES</b>		
89-ADR-CS-1	Tenn-Tom Construction, Inc, Aug. 1989	AD-224807
89-ADR-CS-2	Granite Construction Co., Aug. 1989	AD-225177
89-ADR-CS-3	Olsen Mechanical and Heavy Rigging, Inc. Aug. 1989	AD-225360
89-ADR-CS-4	Bechtel National, Inc, Aug. 1989	AD-224818
89-ADR-CS-5	Goodyear Tire and Rubber Co., Aug. 1989	
91-ADR-CS-6	Corps of Engineers Uses Mediation to Settle Hydropower Dispute	
91-ADR-CS-7	Brutoco Engineering and Construction, Inc.	
91-ADR-CS-8	Bassett Creek Water Management Commission	
91-ADR-CS-9	General Roofing Company	
94-ADR-CS-10	Small Projects Partnering: The Drayton Hall Streambank Protection Project, Charleston County, South Carolina	
94-ADR-CS-11	The J6 Partnering Case Study - (J6 Large Rocket Test Facility)	



- 94-ADR-CS-12 Fort Drum Disputes Review Panel - A Case  
Study in the Alternative Dispute  
Resolution Series
- 95-ADR-CS-13 Use of a Facilitated Task Force to Develop a  
General Permit in Colorado

#### **RESEARCH REPORTS**

- 89-ADR-R-1 Using ADR in the U.S. Army Corps of  
Engineers: A Framework for Decision-  
Making, Aug. 1989

#### **WORKING PAPERS**

- 90-ADR-WP-1 ADR Roundtable: U.S. Army Corps of  
Engineers (South Atlantic Division),  
Corporate Contractors, Law Firms AD-223703
- 90-ADR-WP-2 Public Involvement; Conflict Management;  
and Dispute Resolution in Water Resources  
and Environmental Decision Making
- 90-ADR-WP-3 Getting to the Table
- 90-ADR-WP-4 Environmental Ends and Environmental Means:  
Becoming Environmental Engineers for the  
Nation and the World
- 94-ADR-WP-5 Partnership Councils: Building Successful  
Labor-Management Relationships
- 95-ADR-WP-6 Conflict Resolution, Collaboration, and Management  
In International and Regional Water Resources Issues
- 95-ADR-WP-7 Public Participation in Designing our Environmental  
Future